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NOTICE OF ALLOWANCE AND FEE(S) DUE

2292 7590 01/30/2004

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

BOCCIO, VINCENT F

ART UNIT

PAPER NUMBER

2615

DATE MAILED: 01/30/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/386,183	08/31/1999	SE YONG RO	2950-0129P	1108

TITLE OF INVENTION: AUDIO AND VIDEO SIGNAL RECORDING AND REPRODUCTION APPARATUS AND METHOD

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$0	\$1330	04/30/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

☐ Applicant claims SMALL ENTITY status.
See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail**

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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

2292 7590 01/30/2004

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Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/386,183	08/31/1999	SE YONG RO	2950-0129P	1108

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nonprovisional	NO	\$1330	\$0	\$1330	04/30/2004

EXAMINER	ART UNIT	CLASS-SUBCLASS
BOCCIO, VINCENT F	2615	386-095000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1	_____
2	_____
3	_____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent); ☐ individual ☐ corporation or other private group entity ☐ government

4a. The following fee(s) are enclosed:

- ☐ Issue Fee
☐ Publication Fee
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s):

- ☐ A check in the amount of the fee(s) is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

Director for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

(Authorized Signature)

(Date)

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Alexandria, Virginia 22313-1450.

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09/386,183	08/31/1999	SE YONG RO	2950-0129P	1108
2292	7590	01/30/2004		
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER BOCCIO, VINCENT F	
			ART UNIT	PAPER NUMBER
			2615	
DATE MAILED: 01/30/2004				

Determination of Patent Term Extension or Adjustment under 35 U.S.C. 154 (b)

A reissue patent is for "the unexpired part of the term of the original patent." See 35 U.S.C. 251. Accordingly, the above-identified reissue application is not eligible for Patent Term Extension or Adjustment under 35 U.S.C. 154(b).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

Notice of Allowability

Application No.
09/386,183

Applicant(s)

Ro

Examiner
Boccio, Vincent

Art Unit
2615



--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course.

THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/9/03.
2. ☒ The allowed claim(s) is/are 50-81, renumbered to 14-45 resp.
3. ☒ The drawings filed on 8/31/99 are accepted by the Examiner.
4. ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 08/498,858.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

5. ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment/Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the top margin (not the back) of each sheet. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 5 <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449), Paper No(s). _____ | 6 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| 9 <input checked="" type="checkbox"/> Other <u>Decision On Petition (Paper No. 27)</u> | |



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/386183	8/31/1999	Se Young Ro	2950-129P

EXAMINER	
Boccio, V.	
ART UNIT	PAPER NUMBER
2615	27

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

1) Amendment E filed 5/30/03 has hand written changes in ink, but the changes are not dated and initialed.

All hand written changes are required to be in ink, initialed and dated. The initialing and dating of the hand written notations of Amendment E have been done by the examiner.

2) The petition 37 CFR 1.324 cannot be used to correct inventorship of a reissue application where inventorship is not the only change being made (SEE MPEP 1412.04 "REISSUE AS A VEHICLE FOR CORRECTING INVENTORSHIP"). The petition is Dismissed and the petition fee has been refunded to the Deposit Account 02-2448.

It is noted that the 324 petition has pencil changes, which are required to be provided in ink and be dated by the applicants prior to execution of the oath, SEE MPEP 605.04(a). This issue is moot given item No. 2 above.

However the supplemental declaration filed on 2/27/2002 contains a combined statement, signed by both parties stating that the original patent was wholly or partly inoperative through error that an inventor (Han Jung) was not named. The combination of both documents is sufficient to correct inventorship, thus rendering the Petition under 324 moot.

ANDREW CHRISTENSEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

DETAILED ACTION

1. An Examiner's Amendment to the record appears below. The Examiner's Amendment is necessary to place the claims in the proper format according to 37 CFR 1.173. A supplemental declaration will not be required given the Examiner's Amendment is merely a change in form. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it must be submitted no later than the payment of the issue fee.

2 The application has been amended as follows:

Please replace claims 1-13 with claims 1-13 herein.

Sub F1
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[1. An audio and video signal recording and reproduction apparatus comprising: a data recording unit for recording audio and video signals; a data reproduction unit for reproducing audio and video signals; and a separable storage unit for storing data by said data recording unit and outputting stored data through said data reproduction unit; wherein said data reproduction unit comprises: a keyed input unit for selecting a mode according to the function of a keyed input; a microcomputer for encoding and decoding an input signal according to the output of said keyed input unit; a filter unit for filtering audio signals output from said microcomputer; and a data display for displaying data searched according to the output of said microcomputer.]

[2. An audio and video signal recording and reproduction apparatus according to claim 1, wherein said data recording unit comprises: a data selector for selecting a mode and data according to the control of said microcomputer; a system control for generating clock and control signals according to output of said data selector; a data compressor for converting an input analog signal to a digital signal and compressing the resulting digital signal according to the control of said system control; a memory control for generating memory control signals and addresses according to the control of said system control; a memory for storing compressed data output by said data compressor according to the control of said memory control; and an interface unit for performing data input/output operations between said memory and separable storage unit according to the control of said system control.]

[3. An audio and video signal recording and reproduction apparatus according to claim 1, wherein said data reproduction unit additionally comprises: a video signal Digital/Analog converter for Digital/Analog converting video data output from said microcomputer; and a display for displaying video data output from said video signal Digital/Analog converter.]

[4. An audio and video signal recording and reproduction apparatus according to claim 1, wherein said filter unit comprises: a first low pass filter for filtering an audio left channel signal output from said microcomputer; and a second low pass filter for filtering an audio right channel signal output from said microcomputer.]

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Cont

[5. An audio and video signal recording and reproduction apparatus comprising: a data recording unit for recording audio and video signals; a data reproduction unit for reproducing audio and video signals; and a separable storage unit for storing data by said data recording unit and outputting stored data through said data reproduction unit; wherein said separable storage unit comprises: a memory array for storing data; an address generator for generating addresses for specifying regions of said memory array; a data interface unit for performing input/output operations on data stored in said memory array; and a control unit for controlling said address generator and data interface unit.]

[6. An audio and video signal recording and reproduction method comprising the steps of: reading a keyed signal when the keyed signal is input; processing data when the input key signal is a record signal and storing the result in a separable storage unit; reproducing and outputting data stored in said separable storage unit if the keyed input is determined as a reproduction signal; and reading and displaying a content table of data stored in the separable storage unit if the keyed input is determined as a search signal; wherein said processing step comprises the steps of: Analog/Digital converting input data; encoding said Analog/Digital converted data; and storing said encoded data in a separable storage unit.]

[7. An audio and video signal recording and reproduction method according to claim 6, wherein said encoding step comprises the steps of: encoding any audio data; and encoding any video data.]

[8. An audio and video signal recording and reproduction method according to claim 7, wherein said step of encoding audio data comprises the steps of: subband-sampling said audio data; quantizing and coding said subband-sampled data; and packing said coded data.]

[9. An audio and video signal recording and reproduction method according to claim 7, wherein said step of encoding video data comprises the steps of: restructuring the frame of said video data; detecting motion components of said restructured data; motion estimating the data to form motion estimated data; and transforming and coding said motion estimated data into data of specified frequencies.]

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[10. An audio and video signal recording and reproduction method according to claim 6, wherein said data reproducing step comprises the steps of: memory accessing said stored data in a separable storage unit; decoding said accessed data stored in a separable storage unit; Digital/Analog converting said decoded data; and outputting said Digital/Analog converted data.]

[11. An audio and video signal recording and reproduction method according to claim 10, wherein said decoding step comprises the steps of: decoding any audio data stored in a separable storage unit; and decoding any video data stored in a separable storage unit.]

[12. An audio and video signal recording and reproduction method according to claim 11, wherein said step of decoding audio data comprises the steps of: unpacking any accessed compressed audio data stored in a separable storage unit; restructuring said unpacked data to form restructured data; and inverse-subband-sampling said restructured data.]

[13. An audio and video signal recording and reproduction method according to claim 11, wherein said step of decoding video data comprises the steps of: inverse-transforming and decoding said accessed compressed video data stored in a separable storage unit into a time domain data; and storing and restructuring the frame of said decoded data.]

Allowable Subject Matter

3. Claims 50-81 are allowed.

The rejection under 112 para 1, newly presented claims 50-81, has been dropped in view of interview on 4/9/03, as pointed out by applicant, in the original specification, has support for the claims 50-81, and are allowable over the prior art of record, for the reasons already of record on 10/21/02, Amendment D, also see response on 2/20/03.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Fax Information

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communication intended for entry)

or:

(703) 308-5359, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).


Contact Information

4. Any inquiry concerning this communication or earlier communications should be directed to the examiner of record, Vincent F. Boccio (703) 306-3022.

If any attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, Andy Christensen (703) 308-9644.

Any inquiry of a general nature or relating to the status of this application should be directed to Customer Service (703) 306-0377.

Primary Examiner, Boccio, Vin
June 27, 2003


VINCENT BOCCIO
PRIMARY EXAMINER